

Date: Wednesday, 3/8/2006 10:38:52 AM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BLOWER ADAPTER FLANGE
Job Number : 26131	
Estimate Number : 12310	
P.O. Number : N/A	Part Number : D34775
This Issue : 3/8/2006 S.O. No. : N/A	Drawing Number : D3477 REV A
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : PURCHASED PARTS	Drawing Revision : A
Previous Run : N/A	Material : N/A
Written By : SEE COMMENT BELOW	Due Date : 3/31/2006 Qty: Um: Each
Checked & Approved By : 06.03.08	
Comment : Est Rev:A New Issue 06-03-03 JLM	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: Issue P/O: 00000768 06/03/09  
 E-mail or Ship DXF file to vendor  
 Laser cut flat pattern as per Dwg D3477  
 Possible supplier: Ind. Laser  
 Material release note is required.

2.0	D34775F	BLOWER ADAPTER FLANGE FLAT PATTERN
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Comment: Qty.: 1.0000 sf(s)/Unit Total : 6.0000 sf(s)  
 FLANGE PLATE

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1  
 Receive & Inspect For Transit Damage  
 Ensure material certification is attached

06.03.22

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

06.03.22

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Deburr if necessary.

2-Form as per Dwg D3477 using Dt8858 A,B&C

06.03.22

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
06/03/02	5	One Slot pattern kept as template	JB	06.03.02	1	<i>[Signature]</i>	<i>[Signature]</i>
		ADD Inspection LEVEL 21	EE	06.04.03			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes (No) DQA: DD Date: 06/03/02  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 3/8/2006 10:38:52 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLOWER ADAPTER FLANGE

Job Number: 26131

Part Number: D34775

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SB

06/03/30

9

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

0603-29

⑨

Inspection Level 21

06/03/30

⑨

Job Completion



06.03.30

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector


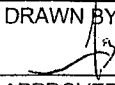
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

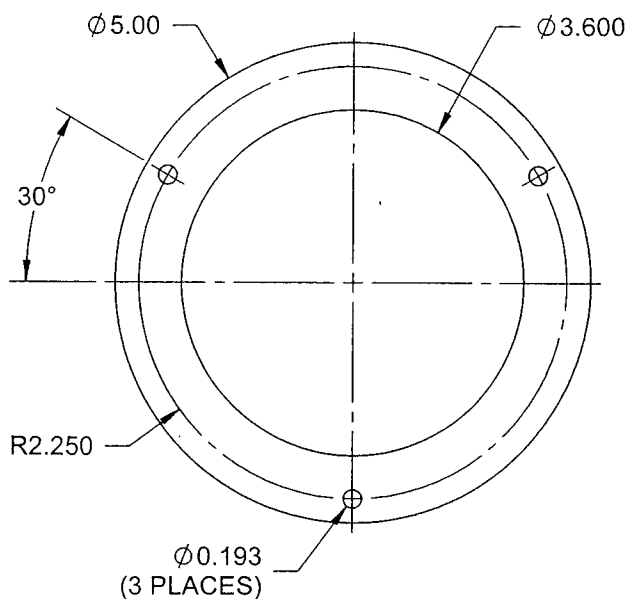
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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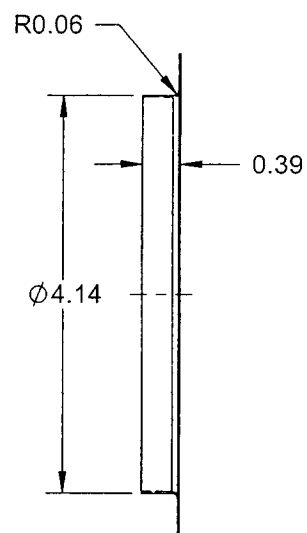
**NOTE:** Date & initial all entries

PRELIMINARY ISSUE

DESIGN 	DRAWN BY 	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3477	REV. A SHEET 4 OF 4
DATE 05.12.09		TITLE BLOWER INLET ADAPTER	SCALE 1:2



**D3477-5F FLAT PATTERN**



**D3477-5 BLOWER  
ADAPTER FLANGE**


**NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH  
26 GAUGE SS (0.018 THICK)  
(REF. DART SPEC. M304S26GA)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

3/17/06

604-946-453 ATTN: PETE

03/17/2006 14:36 FAX 804 946 4153  
03/17/2006 14:18 FAX 8042729137INDUSTRIAL LASER CUTTING  
INTEGRIS METALS002  
001/004

		<b>AK Steel Corporation</b> <b>Metallurgical Test Report</b> <b>Coshocton Works</b> <b>Coshocton, OH 43812</b>		Page 1 Lead No. 7410672 SRN No. 7410672											
		INTEGRIS METALS PO BOX 340 MINNEAPOLIS, MN 55440		INTEGRIS METALS 306 'B' STREET ALBURN, WA 98001											
MILL ORDER NO. 771185-0191 PROCESSOR ORDER NO. 427135-01 BUYER'S ORDER NO. 427135-01		PART NO. 74151497 ENG. UNIT - PRODUCT - METRIC UNIT DIM NOM 48.000 X COIL													
SKID ID	PIECE	WEAT	PARENT COIL ID	NET WEIGHT											
SKD713143	1	7250151	0549919-01	2345 LBS. 4012 KG.											
SKD713144	1	7250151	0549919-01	2470 LBS. 4813 KG.											
SKD713145	1	7250151	0549919-01	2425 LBS. 4848 KG.											
SKD713149	1	7250151	0549919-01	2441 LBS. 5392 KG.											
TOTAL SKIDS	TOTAL PIECES			TOTAL NET WEIGHT											
4	4			9681 LBS. 4607 KG.											
L-Label Analysis of Heat      P-Product Analysis of Parent Coil <b>CHEMICAL ANALYSIS</b>															
ID	C	MN	P	S	SI	CR	NI	MO	N	CU	CO				
L 7250151	.049	1.39	.027	.001	.35	18.18	8.05	.35	.04	.30	.12				
SHIPPING DATE: 03/13/2005      REMARKS: NO INTENTIONAL ADDITIONS OF MERCURY OR MERCURY COMPOUNDS, RADIUM, ALPHA SOURCE, AND LOW MELTING ALLOYS OR ELEMENTS CAPABLE OF FORMING LOW MELTING ALLOYS WERE MADE THROUGHOUT THE PROCESSING OF THIS MATERIAL.						<b>PRODUCT DESCRIPTION</b> CR SHY TYPE 304 STAINLESS #2B FINISH SLIT EDGE * AMS 8812 * ALL TECH REQ'S HAVE BEEN MET UNLESS NOTED TO OR NOTED OTHERWISE * A SYN A 240 -04 EX PARA 3.1.1 ELONG WILL BE DETERMINED BY ASTM E 8 * ASTM A 490 -01 EX PARA 19.1.1 ELONG WILL BE DETERMINED BY ASTM E 8 H & S EX PARA 28.1.1.3 COIL WILL BE TAGGED ON OUTSIDE ONLY * ASTM A 866 -03 * IN-011 Rev 0, * IN-011 0 * BUYER PART# 74251497 * ASME SA-240 SECTION II PART B (2001 ED. 2002 ADDENDA) EX PARA 3.1.1 ELONG WILL BE DETERMINED BY ASTM E 8 * EX-10204 3.1.1									
PARENT COIL ID	FOR (EVT)	DIR (L, T, D)	COND	%ELONG 2 INCH MEASURED	TENSILE STRENGTH (KSI)	YS. %OFTSET (KSI)	ROCKWELL HARDNESS 'Tall	ROCKWELL HARDNESS 'Front							
0549919-02	T	T	ASTM	71.0	95.2	27.1	72	74							
*** CONTINUED ON NEXT PAGE ***															

3/17/2006 1:57 PAGE 001/002 Fax Server

Ryerson

F-597

T-726 P.007/016

253-286-9888

FROM-INTEGRIS

MAY-17-2006 16:05

Ryerson

3/17/2006 1:57

PAGE 002/002

Fax Server

MAY-17-2006 16:05

FROM-INTEGRIS

253-288-8833

T-726 P.008/015 F-527



**AK Steel Corporation**  
**Metallurgical Test Report**  
 Coshocton Works  
 Coshocton, OH 43812

Page 2

Lot# No. 7410672  
 BRN No. 7410672

WILL ORDER NO. 427136-01 PROCESSOR ORDER NO. 427136-01  
 47308-0191

PART NO.  
 7421697

ENGLISH UNITS - PRODUCT - METRIC UNITS  
 371306 44000 X COIL

INTERGRIS METALS  
 PO BOX 380  
 MINNEAPOLIS, MN 55440

INTERGRIS METALS  
 305 E STREET  
 AUBURN, WA 98001

C U S T O M E R

S H I P T O

P A R T N O

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M E A S U R E D

## MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN  
740 IMPERIAL ROAD NORTH

Page : 1  
Heat/Lot : 86K8  
TIN : B42748

Sold To: INTEGRIS METALS, LTD.  
7910 49TH STREET SE  
CALGARY, AB T2C2Y3

Ship To: \*\*\*CUSTOMER PICKUP\*\*\*  
4375 14TH STREET NORTHEAST  
CALGARY  
ABT3E7A9

### Vendor Information

Cust PO #: 406824

Cust PO DT: 11/03/05

### Specifications

STAINLESS STEEL SHEET, COLD ROLLED, ANNEALED AND PICKLED.  
ASTMA240/04a 480/04a, 666/03, ASME SA240/04-A05, 480/04-A05, SA666/04  
Q08766D-A X 1/8 FRM, AMS5513H X MRK&FIN, MIL5059D, AMD3, X CRWN MRAS  
CORROSION: ASTM A262/02aE; 180Bend-OK  
Buyer Part: 4288441  
304 2B .1305 IN 48 IN 96 IN  
Country of Origin: UNITED STATES

### Mechanical Tests

		UOM	L	O	UOM	L	O
Yield Strength - 0.2% Offset	40	KSI	F	TRANSV			
Tensile Strength (UTS)	93.3	KSI	F	TRANSV			
Rockwell B	85		F	TRANSV			
Pct Uniform Elong 2 In/50mm	57.01	PCT	F	TRANSV			
Rockwell A	85		T	TRANSV			

### Chemical Composition

C Carbon-Pct	.059	CR Chromium-Pct	18.360
CU Copper-Pct	.342	MN Manganese-Pct	1.643
MO Molybdenum-Pct	.285	N Nitrogen-Pct	.037
NI Nickel-Pct	8.150	P Phosphorus-Pct	.029
SI Silicon-Pct	.289		

### Comments



# MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN  
740 IMPERIAL ROAD NORTH

Page : 2  
Heat/Lot : 86K8  
TIN : B42748

Material free from mercury contamination. No weld repairs.  
EN 10204 3.1 PED 97/23/EC Annex1, Para. 4.3 Q08763F Cond A  
This document certifies the material has been tested in  
accordance with applicable specifications described herein  
and has met those requirements.

QA by ERIC HESS 02/01/2006

## Miscellaneous Data

GUELPH, ONT. K123  
Control #: S/C60214  
Part #: 74271441  
.135 X .48 X .96

Date: 03/17/06

SOLD TO: INDIAN LAKE

TO 110880

S/O 90-374786 - 02

*Eric Hess* 3/17/06

The Chemical Analysis and Mechanical Test  
data was received via EDI from the above  
mentioned vendor.

INTEGRIS METALS, LTD.